# Notices to Airmen (NOTAM) for the OPERATIONAL EVALUATION OF RUNWAY STATUS LIGHTS (RWSL)

## At the

# DALLAS/FORT WORTH INTERNATIONAL AIRPORT, DALLAS, TEXAS

#### **PURPOSE**

The Federal Aviation Administration (FAA) will be conducting an assessment of Runway Status Lights (RWSL) on Runway 18L/36R at the Dallas/Fort Worth International Airport (DFW) commencing on February 14, 2005 for a period of approximately three months. RWSL is an experimental system that uses both primary and secondary surveillance to dynamically turn on/off lights. RWSL seeks to improve airport safety by indicating when it is unsafe to cross or enter a runway; it is an automatic, advisory backup system expected to prevent or reduce the severity of runway incursions.

#### LIGHTING

RWSL conveys the <u>runway status</u>, indicating when a runway is unsafe to enter through the use of in-pavement warning Runway Entrance Lights (RELs). RELs have been installed at the following intersections of Runway 18L/36R:

West Side East Side

at Taxiways Y, Z, WJ, WK, G8, WL, WM, at Taxiways Y, YA, Z, B, and A B, and A

The RELs are a series of five red, in-pavement lights spaced evenly along the taxiway centerline from the taxiway hold line to the runway edge. One REL is placed just before the hold line and one REL is placed near the runway centerline. All RELs are directed toward the **runway hold line** and are oriented to be visible only to pilots and vehicle operators entering or crossing the runway from that location.

#### **OPERATION**

RWSL is an advisory system for use by pilots and vehicle operators. It operates independently of Air Traffic Control. Status lights have two states: ON (lights are illuminated red) and OFF (lights are off) and are switched automatically based on information from the airport surface surveillance systems. These surveillance systems include airport surveillance radars (ASRs), surface detection radars (ASDE-3 or ASDE-X) and multilateration information from ASDE-X. IT IS IMPORTANT THAT TRANSPONDERS BE TURNED ON AND KEPT ON WHILE TAXIING IN THE MOVEMENT AREA SO THAT BEACON-BASED POSITION AND AIRCRAFT IDENTIFICATION DATA ARE AVAILABLE TO RWSL.

RELs that are ON (illuminated red) indicate that the runway ahead is not safe to enter or cross, RED MEANS STOP! Pilots should remain clear of a runway when an REL along their taxi route is illuminated. Lights that are off convey no meaning — THE SYSTEM IS NOT, AT ANY TIME, INTENDED TO CONVEY APPROVAL OR CLEARANCE TO PROCEED ONTO A RUNWAY. Pilots remain obligated to comply with all ATC clearances, except when compliance would require crossing an illuminated red REL. In such a case, the crew should HOLD SHORT of the runway (if possible), contact ATC, and await further instructions. However, if the pilots notice an illuminated red REL and remaining clear of the runway is impractical for safety reasons, then crews should proceed according to their best judgment of safety (understanding that the illuminated REL indicates the runway is unsafe to cross or enter) and contact ATC at the earliest opportunity. ATC may disable RWSL at any time if in their judgment the system is interfering with normal, safe operations.

# **HOURS OF TESTING**

The assessment of RWSL at DFW will be gradually phased into normal airport operations. Initially, the system will be tested only under VMC and during light traffic activity. ATC and RWSL test personnel will determine the hours of operation of RWSL at DFW. The current operational status of the RWSL system will be broadcast on the ATIS.

## **TEST CONFIGURATIONS AND RUNWAYS**

Although the system has been designed to operate under all DFW operating configurations, testing will only be conducted on the West airfield when runway 18L/36R is in use (i.e., during both South flow and North flow runway configurations).

#### PILOT EVALUATION

Part of the assessment includes collecting feedback from pilots. A brief list of questions will be printed on the pilots' release notes and will be posted on the website. It is essential that pilots respond to questionnaires available on various venues including the RWSL website via the

Internet, <u>www.rwsl.net</u>, in flight operations offices and domiciles at the DFW airport. In addition, interviews with pilots will be conducted during the test period. Pilots are also encouraged to respond with comments by letter using the preaddressed stamped envelope or email to:

Peter V. Hwoschinsky FAA, ATO-P 800 Independence Avenue Washington, D.C. 20591 SW

Voice: 202 493-4696 Fax: (202) 267-5111

e-mail: peter.hwoschinsky@faa.gov

Please note that pilot feedback is essential to an accurate assessment of the acceptability and utility of the RWSL system.

# ATTACHMENT

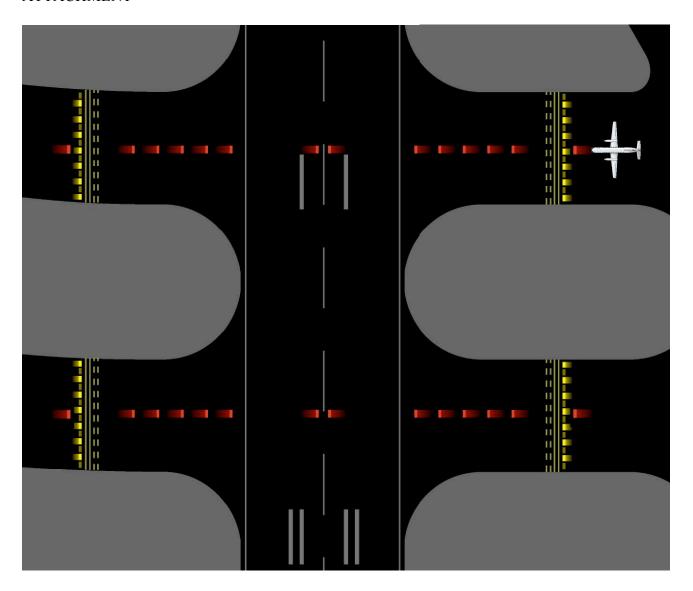


Figure 1. Runway Entrance Lights (RELs) along a straight taxiway centerline.



Figure 2. Photograph of L861-S fixture.

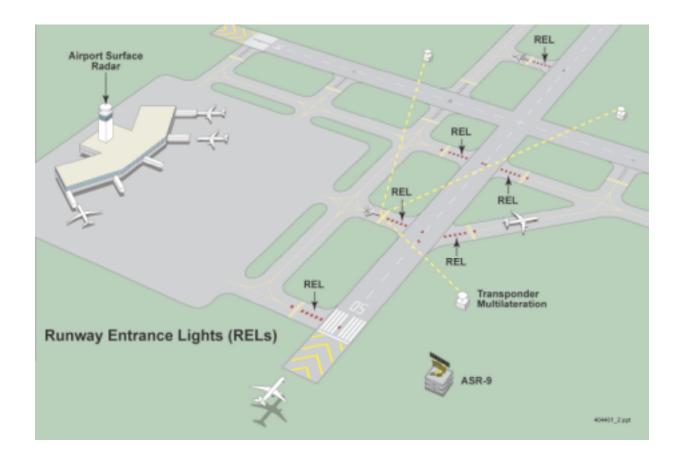


Figure 3. Conceptual diagram of the Runway-Status Light System at DFW with surveillance sources driving RELs shown illuminated in red

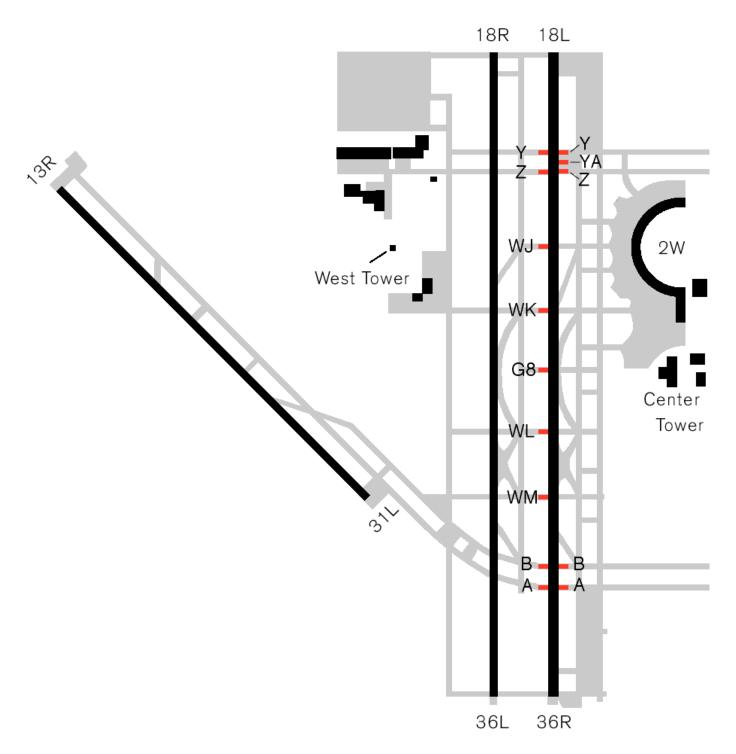


Figure 4. REL alignment and locations on taxiways intersecting with 18L/36R at DFW.